

Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claims 1-10 (Canceled)

Claim 11 (Currently Amended): An output buffer circuit comprising:

an input terminal for receiving an input signal;

an output terminal for outputting an output signal;

a first inverter connected to the input terminal, the first inverter outputting a first signal having a slow rise up and fall down characteristic;

a second inverter connected to the input terminal, the second inverter outputting a second signal having the slow rise up and fall down characteristic;

a pull up control circuit connected to the input terminal, the pull up control circuit including a delay circuit that is connected to the input terminal and that has third inverters connected in series that provide a delayed input signal,

the pull up control circuit pulling up a voltage of the first signal under control of the delayed input signal during a predetermined time from a time when the input signal is changed from "L" level to "H" level;

a pull down control circuit connected to the input terminal, the pull down control

circuit pulling down a voltage of the second signal during a predetermined time from a time when the input signal is changed from "H" level to "L" level;

a first output transistor having a source connected to a first power source potential node, a drain connected to the output terminal and a gate connected to the first inverter so as to receive the first signal; and

a second output transistor having a source connected to a second power source potential node, a drain connected to the output terminal and a gate connected to the second inverter so as to receive the second signal.

Claim 12 (Currently Amended): An output buffer circuit ~~according to claim 11~~
comprising:

an input terminal for receiving an input signal;

an output terminal for outputting an output signal;

a first inverter connected to the input terminal, the first inverter outputting a first signal having a slow rise up and fall down characteristic;

a second inverter connected to the input terminal, the second inverter outputting a second signal having the slow rise up and fall down characteristic;

a pull up control circuit connected to the input terminal, the pull up control circuit pulling up a voltage of the first signal during a predetermined time from a time when the input signal is changed from "L" level to "H" level;

a pull down control circuit connected to the input terminal, the pull down control

circuit pulling down a voltage of the second signal during a predetermined time from a time when the input signal is changed from "H" level to "L" level;

a first output transistor having a source connected to a first power source potential node, a drain connected to the output terminal and a gate connected to the first inverter so as to receive the first signal; and

a second output transistor having a source connected to a second power source potential node, a drain connected to the output terminal and a gate connected to the second inverter so as to receive the second signal,

wherein each of the first and second inverters comprises[[],]

an inverter input terminal[[]],

an inverter output terminal[[]],

a first inverter transistor of a first conductivity type having a back gate connected to the second power source potential node, a first terminal, and a second terminal and a gate connected together with the first power source potential node[[]],

a second inverter transistor of a second conductivity type having a back gate connected to the first power source potential node, a first terminal connected to the first terminal of the first inverter transistor, a second terminal connected to the inverter output terminal and a gate connected to the inverter input terminal[[]],

a third inverter transistor of the second conductivity type having a back

gate connected to the first power source potential node, a first terminal, and a second terminal and a gate connected together with the second power source potential node[[:]], and

a fourth inverter transistor of the first conductivity type having a back gate connected to the second power source potential node, a first terminal connected to the first terminal of the third inverter transistor, a second terminal connected to the inverter output terminal and a gate connected to the inverter input terminal.

Claim 13 (Currently Amended): An output buffer circuit ~~according to claim 14~~ comprising:

an input terminal for receiving an input signal;

an output terminal for outputting an output signal;

a first inverter connected to the input terminal, the first inverter outputting a first signal having a slow rise up and fall down characteristic;

a second inverter connected to the input terminal, the second inverter outputting a second signal having the slow rise up and fall down characteristic;

a pull up control circuit connected to the input terminal, the pull up control circuit pulling up a voltage of the first signal during a predetermined time from a time when the input signal is changed from "L" level to "H" level;

a pull down control circuit connected to the input terminal, the pull down control circuit pulling down a voltage of the second signal during a predetermined time from a

time when the input signal is changed from "H" level to "L" level;

a first output transistor having a source connected to a first power source potential node, a drain connected to the output terminal and a gate connected to the first inverter so as to receive the first signal; and

a second output transistor having a source connected to a second power source potential node, a drain connected to the output terminal and a gate connected to the second inverter so as to receive the second signal,

wherein each of the first and second ~~inverter~~ inverters comprises[[,]]

an inverter input terminal[[:]],

an inverter output terminal[[:]],

a first inverter transistor of a first conductivity type having a back gate connected to the first power source potential node, a first terminal, a second terminal connected to the inverter output terminal and a gate connected to the inverter input terminal[[:]],

a first diode connected between the first power source potential node and the first terminal of the first inverter transistor for pulling down a voltage supplied from the first power source potential node[[:]],

a second inverter transistor of a second conductivity type having a back gate connected to the second power source potential node, a first terminal, a second terminal connected to the inverter output terminal and a gate connected to the inverter input terminal[[:]], and

a second diode connected between the second power source potential node and the first terminal of the second inverter transistor for pulling down a voltage supplied from the first terminal of the second inverter transistor.

Claim 14 (Previously Presented): An output buffer circuit according to claim 13, wherein the first diode has an anode connected to the first power source potential node, and a cathode connected to the first terminal of the first inverter transistor, and wherein the second diode has a cathode connected to the second power source potential node, and an anode connected to the first terminal of the second inverter transistor.

Claim 15 (Currently Amended): An output buffer circuit according to claim 11, wherein the pull up control circuit ~~includes, a delay circuit having an input terminal connected to the input terminal of the output buffer circuit and having an output terminal, and~~ further comprises:

a pull up transistor having a first terminal connected to the first power source potential node, a second terminal connected to an inverter output terminal of the first inverter and a gate connected to ~~[[the]]~~ an output terminal of the delay circuit.

Claim 16 (Currently Amended): An output buffer circuit according to claim 11, wherein the pull down control circuit ~~includes~~ comprises:

a second delay circuit having an input terminal connected to the input terminal of

the output buffer circuit and having fourth inverters connected in series that provide a second delayed input signal; an output terminal~~[[,]]~~ and

a pull down transistor having a first terminal connected to the second power source potential node, a second terminal connected to an inverter output terminal of the second inverter and a gate connected to ~~[[the]]~~ an output terminal of the second delay circuit,

wherein the pull down transistor pulls down the voltage of the second signal under control of the second delayed input signal.

Claim 17 (Previously Presented): An output buffer circuit according to claim 11, further comprising an enable gate circuit having a first input terminal connected to the input terminal of the output buffer circuit, a second input terminal connected to receive an enable signal and a pair of output terminals respectively connected to inverter input terminals of the first and second inverters.

Claim 18 (Currently Amended): An output buffer circuit according to claim 17, wherein the enable gate circuit includes,

an AND circuit having a first input terminal connected to the first input terminal of the enable gate circuit, a second input terminal connected to receive the enable signal and an output terminal connected to the inverter input terminal of the first inverter,

a ~~[[third]]~~ fourth inverter having an input terminal connected to receive the enable

signal and having an output terminal, and

an OR circuit having a first input terminal connected to the first input terminal of the enable gate circuit, a second input terminal connected to the output terminal of the ~~[[third]]~~ fourth inverter and an output terminal connected to the inverter input terminal of the second inverter.

Claims 19-20 (Canceled)